Please type a plus sign (+) inside this box -> +										
	Please	type a	plus	sign	(+)	inside	this	pox	-	+

JUN 1 0 2002

TRADEN

PTC/SB/08A (10-96)
Approved for use through 10/31/99, OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449APTO

Forest and Trademark Office: U.S. DEPARTMENT OF COMMERCE.

Substitute for form 1449APTO

Forest and Trademark Office: U.S. DEPARTMENT OF COMMERCE.

Complete if Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of

C	omplete if Known
Application Number	10/036,992
Filing Date	DECEMBER 29, 2001
First Named Inventor	SAFWAT, Sh rif
Group Art Unit	3643
Examiner Name	Kurt Rowan
Attorney Docket Number	2194DIV1

					U.S. PATENT DOCUM	MENTS	
Exan Initia	niner	Cite No.1	Mumbar	Curnent (Ind Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Floures Appear
	K		1,026,54		YAMAMOTO, Takejiro	05/14/12	
			1,552,26		BROCKER, Walter C.	09/01/25	
			1,897,22		ANDREWS, Phillip R.	08/31/31	
			2,162,11		PAULS,Peter T.	06/13/39	
			2,511,0		GUTHRIE L., et.al.	06/13/50	
			2,590,58		THOMPSON, W.E. et.al.	03/25/52	
			2,792,61		HALLER, John, W.E.	05/21/57	
			2,816,38		HARRIS,V.L. et.al.	12/17/BES	T AVAILABLE COP
			2,823,57		NEEDHAM,E.R., et.al.	02/18/58	- COP
			2,999,41		MOMOI, Kazuo	09/12/61	
			3,041,91	15	RYFFEL, K., et.al.	07/03/62	
			3,102,35		LUKETA, Frank J.	09/03/63	
			3,129,63		STARR, Robert J.	04/21/64	
			3,131,50	01	LUKETA, Frank J.	05/05/64	
			3,153,29		GRABOWSKY, M.G.	10/20/64	
			3,308,56		LUKETA, Frank J.	03/14/67	
			3,369,31		BROWNELL, N. C.	02/20/68	
			3,606,81		YAMASHITA S., et.al.	09/21/71	
			4,356,65	54	TREKEL, Rainer, et. al.	11/02/82	
V			4,457,95	59	DORNHEIM, G., et. al.	07/03/84	

				FORE	IGN PATENT DOCUMENT	rs		
			Foreign Patent Doc	ument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines,	Т
	Cite No. ¹	Office ³	C8 ³ Number ⁴ (# known)		Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Floures Appear	7
		DE	354 3	1253 A1		06/1987		T
		FR	2521	1065		08/1983		干
		JP	57-43			03/1982		╪
		JP	69-74			04/1984		+
		JP	60-30	630		02/1985		丰
		JP	60-39	702		03/1982		十
		JP	60-88	160		05/1985		+
		JP	60-139	860		07/1985		T
		JP	61	386		08/1986		+

Examiner Signature	wt R	owan	Date Considered	8/7	12007
Oignature	 001	0.000	Considered	0///	0.007

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English tanguage Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. C mplete if Known Substitute for form 1449A/PTO 10/036,992 Application Number INFORMATION DISCLOSURE **DECEMBER 29, 2001** Filing Date STATEMENT BY APPLICANT First Named Inventor SAFWAT, S. 3643 **Group Art Unit** (use as many sheets as necessary) **Kurt Rowan Examiner Name** Sheet of 5 **Attorney Docket Number** 2194DIV1

JUN 1 0 2002

						
				U.S. PATENT DOCU	MENTS	
Examiner Initials	Cite No.1	U.S. Patent I Number	Kind Code ³	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
K		4,466,	331	MATHESON, M. W.	08/21/84	7 33-34 732-34
		4,521,9	986	KOGA, Tatsumi	06/11/85	
		5,339,6		McMURRAY,Brian L.	08/23/94	
		5,453,		MARTIN, Jimmie SR.	09/26/95	
W		5,752,4	459	REXROAD, John	05/19/98	
				DECT AVAILABLE	CODY	
				BEST AVAILABL	E COPT	
						•
	$\neg \neg$					
					1	
						<u> </u>
					1	

				FORE	IGN PATENT DOCUMEN	rs		
	6 4 -		Foreign Patent Docu	ment	Name of Patentee or	Date of Publication of	Pages, Columns, Lines,	T
Examiner Initials	No.1	Office ³	Number ⁴	Kind Cade ^s (# known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Floures Appear	7
		RU	1444	981		12/1986		Ŧ
		RU	1480	792 A1		05/1989		丰
		wo	94/044	633		02/1991		#=
		we	95/06-	405		03/1995		┿
								I
					······································	 		╀-
								╁╴
				- - 				╁
						1	·	╁

	<u> </u>		
Examiner		Date 9/0/	_
Signature	MUST KINUTAN	Considered 8/1/2007	
	The state of the s		_

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw tine through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-latter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST, 16 if possible. ⁶ Applicant is to place a check mark here if English tanguage Translation is attached.

Please type a plus sign (+) inside this box 🛶	F
Liesze ikbe e biro siğu (A) dizina gus oox —b	+

3

of

PTO/S8/08B (10-96)
Approved for use through 10/31/99, OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

2194DIV1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449B/PTO BEST AVAILA meanon number 10/036.992 INFORMATION DISCLOSURE **DECEMBER 29, 2001** Filing Date SAFWAT, Sherif STATEMENT BY APPLICANT First Named Inventor 3643 **Group Art Unit** Kurt Rowan (use as many sheets as necessary) Examiner Namé

Attorney Docket Number

OIPE

TANT & TRADEN

JUN 1 0 2002

Sheet

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Cite Framine item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-issue number(s), publisher, city and/or country where published. Intiate No 1 Batill, S.M., et al., "An Experimental Investigation of the Flow Field Around Yawed Stranded Cables" Naval Coastal Systems Center, Panama City, Florida (1989) Batill, S.M., et al., "Flow Field Studies on Yawed, Stranded Cables," in Flow Visualization, V, R. Reznicek ed., Hemisphere Publishing Corp., pp.391-396 (1990) Batill, 6.M., et al., "Detailed Near Surface Flow ABout Yawed, Stranded Cables", Coastal systems Station, Dehigren Division, Naval-Surface Warfare Center, Panama City, Florida (1992) Breidenthal, R., Phus. Fluids, Vol. 23, No. 10, p. 1931 (1980) Cermak, .L.E., "Aerodynamics of Buildings," Annual review of Mechanics 8 p. 99 (1976) Diggs, Josse S., "Hydrodynamic Characterization of Various Towed Array Towcables," Towed systems Branch, Naval Ship Research and Development Center, Bethesdda, Maryland (1974).Endeso, Inc., "Haired Faired Cable," Endeco Towed Systems (date unknown)

Examiner Signatur Crwaw	Date Considered	8	17/2007
-------------------------	--------------------	---	---------

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

4 of .

Complete if Known

Application Number 10/036,992

Filling Date DECEMBER 29, 2001

First Named Inventor SAFWAT, Sherif

Group Art Unit 3643

Examiner Name Kurt Rowan

Attorney Docket Number 2194DIV1

TRADEWAR

Sheet:

	OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS	
Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-lasue number(s), publisher, city and/or country where published.	T2
	Flugwiss, Z., Weltraumforsch 14, p. 40 (date unknown)	
	Garner, John "How to Make and Set Nets or The Technology of Netting," Fishing News Books Limited, 1962	
	Hoerner, S.F., "Fluid-Dynamic Drag," published by author, pp. 3-2 and 4-4 (1965).	
	Hoerner, S.F., "III-Pressure Drag," published by author, pp. 3-7,3-9, 3-11 and 3-27 (1965).	
	Hoernor, S.F., " V-Structures," published by author, p.4-5 (1965).	
	Hunt, J.C.R., "Industrial and Environmental Fluid Mechanics," Annual Review of Fluid Mechanics 23, pp. 10-12 (1991).	
	Klust, Gerhard, "Netting Materials for Fishing Gear", published by Food and Agriculture Organization of the United Nations, 1973	
	"Knuckleballs," Scientific American, p. 22 (1987)	
	Liseski graph, Fig. 7, Experimental Lift and Drag Histories for Bluff Plate, p. 95 (1993).	
	Mehta, Rabindra D., "Aerodynamics of Sports Balls," Ann. Rev. Fluid Mech. 17:151-189 (1985).	
	Nebres, Jose V., "Flow Around Yawed Stranded Cables," Master's Thesis, University of Norte Dame, Indiana (1989).	
	No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazina, sorial, s

	/				/	<u> </u>		
Examiner	レナ	D/	1 1	Date	0/	つ /	000	7
Signatur	lww.	KM an		Considered	X/ /	/ /	200 1	1
			······································			'		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

PTC/S8/088 (10-96)

Approved for use through 10/31/99. OMB 0851-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 10/036,992 **Application Number DECEMBER 29, 2001** Filing Date SAFWAT, Sh rif First Named Inventor 3643 **Group Art Unit Kurt Rowan Examiner Name** 2194DIV1 **Attorney Docket Number**

(use as many sheets as nacessary) Sheet

	<u>ੲ)</u>			
	:/		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
	Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ2
l		-	Nobres, Jose V., "Wake Similarity and Vortex Formation for Two-Dimensional	
		·	Bluff Bodies," Doctoral Dissertation, University of Norte Dame, Indiana (1992).	
l			Oceanographic Ribbon Fairing Cable, The rochester Corporation, Cat-82	
Į			(date unknown).	L
١		_	Roshko, A., "Perspectives on Bluff Body Aerodynamics," Second	
l			International Colloquium on Bluff Body Aerodynamics	Ł
I			and Application, Melbourne, 7-10, pp. 81 (1992).	
l		-	"On the Persistence of Transition in the Near-Wake," pp. 607 and 609.	
			Problems of Hydrodynamics and Continum Mechanics, Soc.	
			Industrial and Appl. Math., Philadelphia (1969).	
1		=	Examples of Spectrum products, specific projects and end-users," Spectrum Ocean Systems Limited, Peterborough, Ontario (date unknown).	
			ocean systems Emitted, recommonging ontario (CEAE Emission)	L
			"Pairing and Anti-Stacking Ring Assemblies for Tow Cables," Spectrum Ocean Systems Limited, Peterborough, Ontario (date unknown).	
1		+	Williamson, C.H.K., "Oblique and Parallel Modes of Vortex Shedding in	
I		1	the Wake of a Circular Cylinder at Low Reynolds Numbers,"	
1	-		Journal of Fluid Mechanics 206:595 and 597, 1989.	
1		=	The Zippertubing Co. product data sheets and bulletins for DVH-20 AND	
		1	DVH-40 cable fairings, specifications, and installation (date unknown).	
			·	1
1		1		۱.

Considered 8/7/20	07
	idered $8/7/20$

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number, ² Applicant is to place a check mark here if English language Translation is attached.